



NASA OFFICE OF INSPECTOR GENERAL

OFFICE OF AUDITS
SUITE 8U71, 300 E ST SW
WASHINGTON, D.C. 20546-0001

March 28, 2019

TO: Mark Geyer
Director, Johnson Space Center

SUBJECT: Final Memorandum, *NASA's Strategic Assessment Contract* (IG-19-015, A-18-009-01)

The Office of Inspector General (OIG) evaluated whether NASA appropriately managed the Strategic Assessment Contract (SAC)—a blanket purchase agreement (BPA) with Booz Allen Hamilton to support independent programmatic and institutional assessments—to accomplish its intended objectives relative to cost, schedule, and scope. See Enclosure I for details of our audit scope and methodology, our review of internal controls, and prior related audit coverage.

Overall, we concluded that NASA appropriately managed the SAC. However, we believe NASA missed opportunities for cost savings by not utilizing a multi-award BPA, not requesting additional discounts, and not ensuring task orders were consistent with the statement of work.

Background

The SAC, awarded through Johnson Space Center, supports a range of Agency-wide independent programmatic and institutional strategic assessments. NASA awarded the contract in February 2014 as a 5-year, \$30 million, single-award BPA utilizing firm-fixed-price task orders to Booz Allen Hamilton. The SAC's total contract value increased to an estimated \$112 million in early 2016 with the contract set to run through February 2019.

BPAs establish terms, conditions, and prices between federal agencies and vendors for fulfilling repetitive needs for commonly used goods and services. Because a BPA is not a contract, it does not obligate an agency to purchase a minimum quantity or dollar amount of a good or service until the agency places, and the contractor accepts, an order. Similarly, the agency obligates funds toward a BPA only when it places an order. The General Services Administration (GSA) schedule agreement—one type

of BPA—permits BPAs to be established with vendors participating on the GSA schedule.¹ Under a GSA schedule agreement, an agency uses the framework of the underlying GSA contract but may add specialized terms and conditions, including discounts from GSA-established pricing. In addition, an agency may establish a GSA schedule BPA with one vendor (a single-award agreement) or more than one vendor (multiple-award agreements).

When using GSA schedule agreements, contracting officials must meet certain Federal Acquisition Regulation (FAR) requirements, including ensuring adequate competition, seeking price discounts, and conducting annual reviews.² To promote competition, the FAR instructs officials to give preference to multiple-award agreements to the maximum extent practicable. Moreover, if contracting officials elect to establish a single-award BPA, they must document the justification for doing so. According to the FAR, single-award BPAs may be justified when work is unique or specialized in nature and only one source is capable of responding; when work is a follow-on to a previous requirement; or when an urgent and compelling need exists. In determining whether to establish a single- or multiple-award agreement, the contracting officer should consider the scope and complexity of the requirement, the benefits of ongoing competition and the need to periodically compare multiple technical approaches or prices, the administrative costs of BPAs, and the technical qualifications of the contractors on the GSA schedule.

Contracting officials may seek discounts from GSA schedule prices when establishing a BPA. The FAR states that contracting officials may request a price reduction at any time before placing an order, when establishing a BPA, or in conjunction with annual BPA reviews; however, they must seek a price reduction when the order or BPA exceeds the simplified acquisition threshold of \$150,000.³ Finally, officials must review agreements annually to determine whether the underlying GSA schedule contract is still in effect, the BPA still represents the best value, and whether additional price discounts can be obtained.

Previous work by our office and the Government Accountability Office (GAO) has identified acquisition challenges related to BPAs. Specifically, in 2014 we found that NASA procurement officials failed to maximize competition through their excessive use of single-award BPAs, failed to solicit price discounts, and did not complete required annual reviews to ensure established BPAs still represented the best value to the government.⁴ A 2009 GAO report found that agencies often failed to solicit sufficient vendor discounts, instead relying on GSA-agreed pricing as opposed to seeking agency-specific discounts or determining that ordering volume would merit further vendor discounts.⁵

¹ The Federal Acquisition Regulation (FAR), the federal government’s principal set of procurement rules, also permits federal agencies to establish BPAs with agency-specific terms not tied to an underlying GSA contract.

² Annual reviews are used to determine whether the underlying GSA contract is still in effect, the BPA still represents the best value, and estimated quantities/amounts have been exceeded and additional price reductions can be obtained.

³ The simplified acquisition threshold increased to \$250,000 in February 2018.

⁴ NASA OIG, *NASA’s Use of Blanket Purchase Agreements* (IG-15-009, December 16, 2014).

⁵ GAO, *Contract Management: Agencies Are Not Maximizing Opportunities for Competition or Savings Under Blanket Purchase Agreements despite Significant Increase in Usage* (GAO-09-792, September 9, 2009).

Strategic Assessment Contract

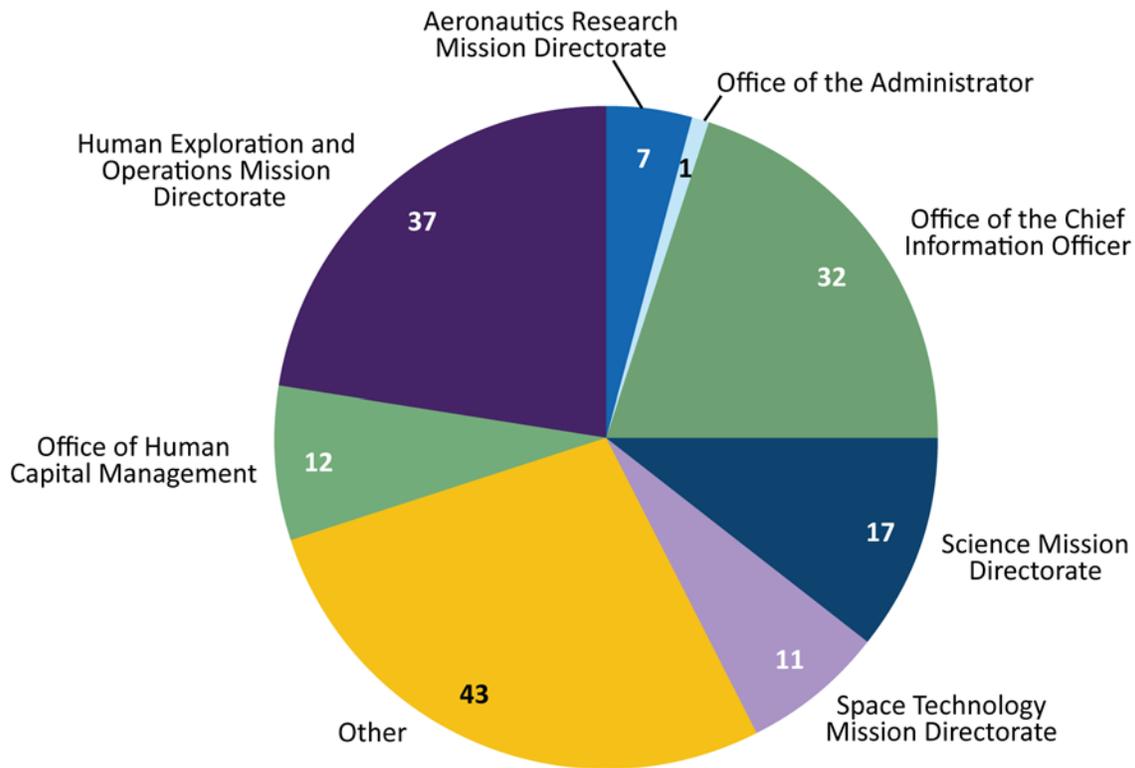
NASA established the SAC as a professional engineering services contract supporting independent cost, schedule, and technical risk assessments for safety and mission assurance activities and life-cycle reviews. The statement of work identified the following activities to be completed by the contractor:

- Independent assessments in support of critical development milestones (such as Preliminary Design Reviews or Critical Design Reviews).
- Independent readiness reviews in tandem with Flight Readiness Reviews.
- Independent programmatic analyses to assess progress towards meeting performance, cost, and schedule commitments in the program baseline as documented in Program Commitment Agreement, and the program/project plans.
- In-depth assessments in special topic areas such as: (1) evaluating the effectiveness of programmatic processes used in operational programs and projects, (2) investigating coordination opportunities with other programs or projects, or (3) studying process improvement opportunities.
- Assessments of special topics related to NASA institutional support capabilities such as: (1) benchmarking, (2) trade studies, (3) assessment of Construction of Facility projects, or (4) assessment of organizational, Center-wide, or Agency-wide processes.

In January 2016, NASA modified the SAC to increase its estimated value to \$112 million while also exercising the second, 1-year option.⁶ This was a result of unforeseen increases in utilization of the contract at NASA Headquarters, which accounted for approximately 55 percent of the contract's task orders and 71 percent of the value. NASA issued 160 task orders valued at \$97.6 million since inception of the contract through September 2018. These task orders were utilized by multiple Mission Directorates and organizations as shown in Figure 1.

⁶ The SAC had a 1-year base period (February 2014–February 2015) with an option for four 1-year extensions through 2019.

Figure 1: SAC Task Orders by NASA Organization (February 2014 to September 2018)



Source: OIG analysis of NASA data.

Note: All others include: Ames Human Capital and Education Directorate; Ames Programs and Projects Management Division; Ames Special Projects Programs & Projects Directorate; Applied Sciences Program; Atmospheric Science Data Center; Earth Science Data and Information System; Earth Science Division; EVA Program Office; Headquarters Applied Science Division; Headquarters Information Technology and Communications Division; International Space Station Commercial Space Utilization Office; International Space Station Program Software Development and Integration Laboratory; Johnson Aircraft Operations Division; Johnson Avionic Systems Division; Johnson Engineering Directorate's Project Management Integration Office; Johnson Exploration Development Integration Office; Johnson Exploration Integration and Science Directorate; Johnson Exploration Mission Planning Office; Johnson Information Resources Directorate; Johnson Project Management and Integration Office; Johnson Strategic Opportunity and Partnership Development Office; Langley Aeronautics Mission Directorate; Langley Research Center; Marshall Systems Engineering and Integration Division; Office of Evaluation; and Office of the Chief Engineer.

Although many Mission Directorates and organizations utilized services provided by the SAC, Johnson's Office of Procurement and Office of Strategic Business and Partnerships Integration was primarily responsible for administration of the contract and issuing task orders. The contracting officer's representative, a member of the Strategic Business and Partnerships Integration Office, provided overall technical direction. Task orders were initiated by the requirements owners—the Mission Directorate or other organization needing the service—who submitted requests to the contracting officer and contracting officer's representative to determine if they fit within the scope of the statement of work. If approved, requests were forwarded to Booz Allen Hamilton for proposal development. Proposals were then assessed by the requirements organization—typically the task monitor—to assure that the proposed cost, schedule, and deliverables were reasonable. In addition to reviewing the proposal, task monitors are responsible for managing and evaluating the contractor's performance. After a task order is issued, requirements owners may add additional work by modifying the existing task order or establishing a new task order. Task order deliverables included items such as assessment reports on

information technology penetration testing and recommendations related to developing workforce planning workshops.

Overall, we found that NASA has appropriately managed the SAC from its inception in 2014 through December 2018. Specifically, we found procurement officials appropriately justified using a single-award BPA and conducted annual reviews required by the FAR. Additionally, task order monitors reported that contractor-provided deliverables were consistent with what was requested and the contractor was dependably responsive to Agency requirements. However, we are concerned that NASA missed opportunities for cost savings by not utilizing a multi-award BPA, requesting additional discounts, and ensuring task orders were consistent with the statement of work.

CONTRACTING OFFICIALS MAY HAVE MISSED OPPORTUNITIES FOR ADDITIONAL SAVINGS

NASA awarded the contract as a single-award BPA as opposed to a multi-award BPA, which according to the FAR is the preferred contracting vehicle. Johnson procurement officials justified their decision to use a single-award BPA, citing the ability to issue expedited task orders and the added administrative costs associated with multi-award BPAs as the rationale. While we understand the added administrative burden and cost to issuing and administering a multi-award BPA, we do not believe these should be primary factors in deciding whether to choose a single-award BPA from the Federal Supply Schedule. According to the FAR, multiple factors should be considered, including the scope and complexity of the agency's requirements, the benefits of on-going competition, the need to periodically compare multiple technical approaches or prices, the administrative costs of BPAs, and the technical qualifications of the schedule contractors. During the acquisition planning process, NASA identified multiple contractors on the GSA schedule that possessed the qualifications to perform the contract, indicating that the work was not so specialized that only a single contractor was capable of performing. Moreover, in our previous work we found that multi-award BPAs encourage vendors to offer better prices than single-awards.⁷ In our view, NASA's continued use of single-award agreements may result in missed opportunities for overall contract savings.

In addition, NASA may have missed other opportunities to obtain additional discounts on services provided under the SAC. NASA's agreement with Booz Allen Hamilton stipulated a 3 percent discount on the established labor rate categories. We found that NASA appropriately requested additional discounts on the labor categories during three out of the four annual reviews, which were completed when NASA exercised an option on the BPA. However, in those cases Booz Allen Hamilton did not provide any additional discounts beyond 3 percent negotiated at award because they deemed the initial discount sufficient. Furthermore, 18 of the 27 task orders (67 percent) in our sample exceeded the simplified acquisition threshold at award but NASA did not seek any further discounts. NASA procurement officials stated they did not seek additional discounts based upon specific task orders awarded under the BPA because the labor rates within the BPA were deemed fair and reasonable by GSA at the time of award and included the NASA-negotiated 3 percent discount. Moreover, procurement officials explained that it is their understanding that the FAR does not require agencies to seek additional discounts for each task order exceeding the simplified acquisition threshold apart from

⁷ IG-15-009.

those negotiated at award or during the annual review. However, the FAR does require contracting officials to “seek a price reduction when the order or BPA exceeds the simplified acquisition threshold.”⁸ Therefore, NASA is missing opportunities for cost savings by not requesting additional discounts on task orders exceeding the threshold—particularly when the contractor has benefited, as of August 2018, from approximately \$63 million in additional work above the contract’s initial value.

MODIFICATIONS TO TASK ORDERS WERE INCONSISTENT WITH STATEMENT OF WORK AND RESULTED IN INCREASED COSTS

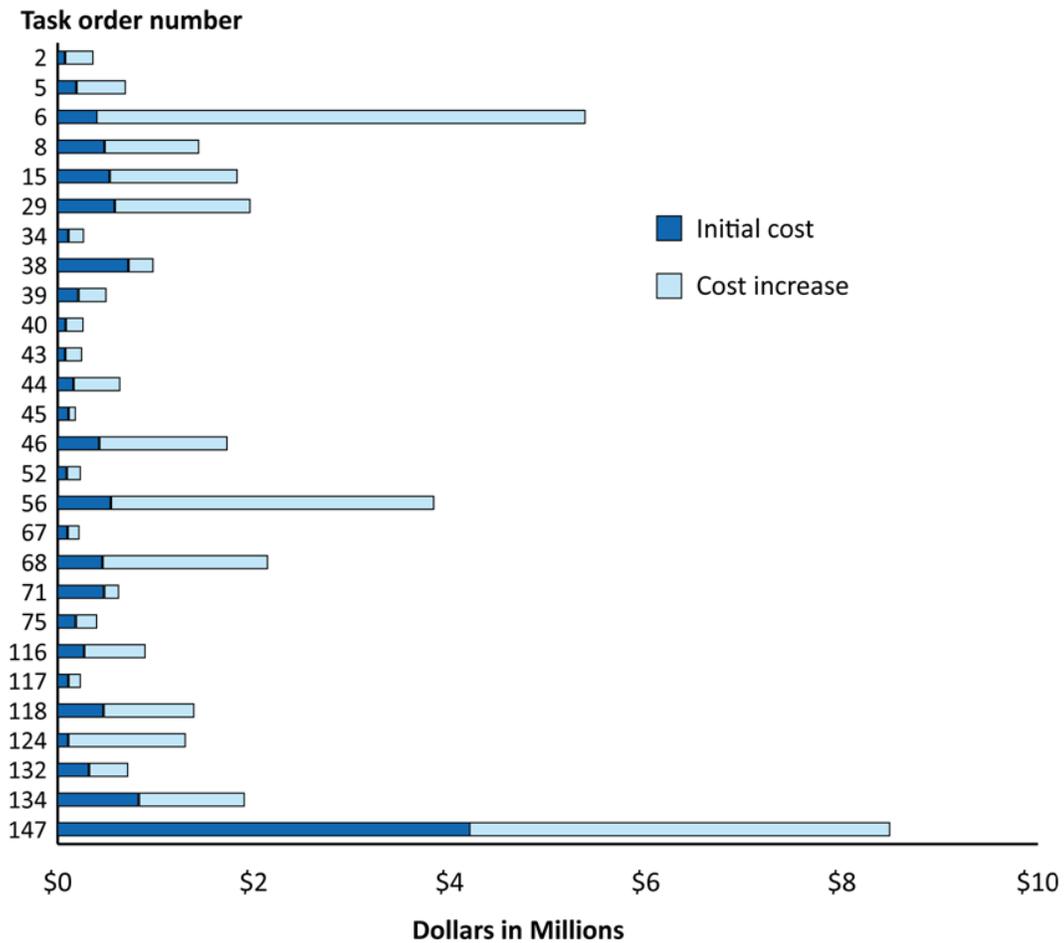
We found that more than half of the SAC’s task orders had at least one modification, including some modified three or more times, with several of the modifications inconsistent with the SAC’s statement of work. Specifically, we noted that many tasks that began as assessments eventually transitioned to implementation of recommended actions—a task that fell outside the statement of work. For example, we identified a task order where an assessment was completed and then a pilot project was added to the task order. The task monitor reported that the pilot was added to verify whether the assessment’s recommendations were accurate prior to full implementation. In our view, pilot projects constitute implementation activities, which were not included in the statement of work. In another task order, we identified a requirement for Booz Allen Hamilton to design and provide recommended adaptations of an existing mobile platform for NASA’s Game Changing Development Program to accommodate usage on iPhones. The task monitor reported that assessments completed under the task order involved demonstrating various elements of the Program’s portfolio, such as databases or data visualization tools, and that due to the explorative nature of the Program it was difficult to judge between assessment and implementation activities, which were not included as part of the statement of work.

The contracting officer and contracting officer’s representative stated that they monitored task orders and consulted with both task monitors and the contractor to ensure the orders were consistent with the statement of work; however, they said it was the responsibility of the requirements organization to determine whether to use the SAC or another contract vehicle for any additional work. It is unclear to us where NASA draws the distinction between assessments and implementation activities that may be better served by using another contract for those follow-on activities. During the course of our audit, procurement officials explained they were planning to include implementation activities in the statement of work for the next iteration of the BPA beginning in February 2019.

We also found that contract modifications increased costs and extended periods of performance. We found that task orders issued under the SAC had an average cost increase of approximately 60 percent, with 30 of the 160 task orders having an increase at or above 100 percent. We judgmentally selected 27 task orders for further review. To make our selection, we considered six areas of risk including cost increases, extensions of period of performance, high number of modifications, periods of performance longer than 1 year, repetitive task orders, and other potential contract vehicles available. Task orders that had three or more potential risks were selected for further review. Our judgmental sample of 27 task orders showed cost increases averaging 279 percent, with one task order having a 1,245 percent increase, as shown in Figure 2.

⁸ FAR 8.405-4, “Price reductions.”

Figure 2: Initial Cost and Increases for Sampled Task Orders



Source: OIG analysis of NASA data.

Procurement officials said these increases did not constitute cost growth, as task orders were fully funded by the requirements organization prior to award, but rather additional costs were the result of requirements organizations adding additional work to the task order. While we understand tasks change and work may be added, the significant increases between initial estimated costs and final costs of the task orders included in our sample highlight the increased and varied use of the contract.

Finally, we identified repetitive, but not necessarily duplicative tasks being performed under the SAC that contributed to the BPA’s overall cost increases. For example, NASA Information Technology Security Division officials issued a task order to complete scheduled penetration testing and vulnerability assessments in order to meet federal cybersecurity requirements and to respond to cybersecurity incidents. Similarly, Headquarters human resources officials utilized the SAC for ongoing data analytics reporting. In both instances, officials reported that their continued reliance on the SAC was due, in part, to a lack of internal expertise, greater flexibility to conduct short-term assessments without requiring additional civil servant support, and a hiring freeze at Headquarters. For certain repetitive tasks such as cybersecurity-related assessments, NASA information technology security officials said they were considering developing a dedicated information technology security services contract that could be competed and potentially reduce costs to the Agency.

In December 2018, NASA awarded the successor BPA to Booz Allen Hamilton as a single-award BPA, with a 1-year base period beginning in February 2019 and four 1-year option periods. This new contract is almost four times the initial value of the previous SAC, or approximately \$112 million due to the increased usage, new programs, and the Agency's enterprise approach to services.

RECOMMENDATIONS, MANAGEMENT'S RESPONSE, AND OUR EVALUATION

Overall, we found that NASA is appropriately managing the SAC. However, in light of the expanded use of the SAC over the past 5 years, we recommended that, for the follow-on contract, the Director of Johnson Space Center:

1. Require the contracting officer to request additional discounts on task orders exceeding the simplified acquisition threshold.
2. Ensure the statement of work encompasses the breadth of task orders including implementation activities anticipated to be needed by requirements owners.

We provided a draft of this memorandum to NASA management, who concurred with our recommendations and described actions the Agency plans to take to address them. We consider management's comments responsive; therefore, the recommendations are resolved and will be closed upon verification and completion of the proposed corrective actions.

Management's comments are reproduced in Enclosure II. Technical comments provided by management have also been incorporated, as appropriate.

If you have questions or wish to comment on the quality or usefulness of this memorandum, contact Laurence Hawkins, Audit Operations and Quality Assurance Director, at 202-358-1543 or laurence.b.hawkins@nasa.gov.



Paul K. Martin
Inspector General

cc: Daniel J. Tenney
Associate Administrator for Mission Support Directorate

Monica Manning
Assistant Administrator for Procurement

Enclosures – 2

Enclosure I: Scope and Methodology

We performed this audit from August 2018 through March 2019 in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

To determine whether NASA appropriately managed the SAC to accomplish its intended objectives relative to cost, schedule, and scope, we reviewed the applicable FAR sections governing the use of BPAs. Additionally, we reviewed the GSA's Federal Supply Services BPA with Booz Allen Hamilton, the finalized contract with NASA, the statement of work, and other applicable contract award and administration documentation. We also reviewed documentation including the determination to establish a single-award BPA to determine whether NASA appropriately considered more than one vendor.

We interviewed the contracting officer and contracting officer's representative to gain an understanding of the overall contract, their roles in monitoring the contract, and their roles in soliciting discounts and conducting the required annual reviews. We identified 160 task orders issued between March 2014 and September 2018 associated with the contract. We reviewed each task order and applicable documentation and judgmentally selected 27 task orders for further review. To select our task orders, we considered six areas of risk including: cost increases, extensions of periods of performance, high number of modifications, periods of performance longer than 1 year, repetitive task orders, and other potential contract vehicles available. Task orders that had three or more potential risks were selected for further review. For these 27 task orders, we reviewed the task order including modifications and the proposal submitted by the contractor. For six of the task orders, we also interviewed the task monitors to gain an understanding of the task and their roles and responsibilities in monitoring the task. Based on our document reviews and initial interviews, we decided not to conduct interviews with the remaining task order monitors.

Use of Computer Processed Data

We did not use computer-processed data to perform this audit.

Review of Internal Controls

We reviewed and evaluated internal controls related to NASA's management of the SAC. We reviewed the appropriate policies and regulations, and conducted interviews with contract personnel. We concluded that the internal controls were adequate for purposes of our review.

Prior Coverage

During the last 5 years, the NASA Office of Inspector General (OIG) has issued one report of significant relevance to the subject of this report: [NASA's Use of Blanket Purchase Agreements \(IG-15-009, December 14, 2014\)](#). Additional unrestricted OIG reports can be accessed at <https://oig.nasa.gov/audits/auditReports.html>.

Enclosure II: Management's Comments

National Aeronautics and
Space Administration

Lyndon B. Johnson Space Center
2101 NASA Parkway
Houston, Texas 77058-3696



XB-19-001

MAR 27 2019

Reply to Attn of: TO: Assistant Inspector General for Audits
FROM: AA/Director
SUBJECT: Agency Response to Office of Inspector General (OIG) Draft Report,
"NASA's Strategic Assessment Contract" (A-18-009-01)

NASA appreciates the opportunity to review and comment on the Office of Inspector General (OIG) draft report entitled, "NASA's Strategic Assessment Contract" (A-18-009-01) dated March 5, 2019.

In the report, the OIG found that NASA appropriately managed the Strategic Assessment Contract (SAC), which is a blanket purchase agreement (BPA) with Booz Allen Hamilton supporting a wide range of independent programmatic and institutional assessments. However, the OIG believes NASA missed opportunities for cost savings by not utilizing a multi-award BPA, not requesting additional discounts, and not ensuring task orders were consistent with the statement of work.

The OIG makes two recommendations to the Director of the Johnson Space Center (JSC) intended to support management oversight due to the expanded SAC and the follow-on contract.

Specifically, the OIG recommends that NASA's JSC Director:

Recommendation 1: Require the contracting officer to request additional discounts on task orders exceeding the simplified acquisition threshold.

Management's Response: Concur. In accordance with Federal Acquisitions Regulation 8.405-4, JSC sought price discounts upon initial establishment of the SAC BPA. Further, it is important to note that JSC sought price discounts annually prior to exercising each option. For the follow-on BPA, the Strategic Professional Engineering Assessments Contract (SPEAC), JSC will request additional discounts on the calls to be issued that exceed the simplified acquisition threshold.

Estimated Completion Date: April 1, 2019.

Recommendation 2: Ensure the statement of work encompasses the breadth of task orders including implementation activities anticipated to be needed by requirements owners.

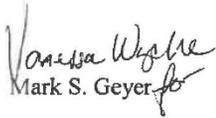
XA-19-001

2

Management's Response: Concur. In establishing the follow-on BPA, SPEAC language was added to the Statement of Work that includes implementation tasks that may be needed by requirements owners.

Estimated Completion Date: Completed. The SPEAC BPA period of performance began February 26, 2019.

Once again, thank you for the opportunity to review and comment on the subject draft report. If you have any questions or require additional information regarding this response, please contact Sharon Thomas on (281) 244-7668.


Vanisa W. Geyer
Mark S. Geyer *for*